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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,284	06/27/2003	Desikachari Nadadur	2003P04639US	8534

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Siemens Corporation
Attn: Elsa Keller, Legal Administration
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER

NGUYEN, LE V

ART UNIT	PAPER NUMBER
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2174

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/608,284

Applicant(s)

NADADUR ET AL.

Examiner

Le Nguyen

Art Unit

2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/23/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5 and 9-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaufman et al. ("Kaufman").

As per claim 1, Kaufman teaches a method for displaying a medical image, the method comprising displaying a medical image in a first display area (figs. 2-6, *element 50*), displaying a plurality of image frames of the medical image in a second display area (figs. 2-6; *plurality of image frames of the medical image 50 with shared scrollbar 58 displayed below 54*) and displaying a data plot in a third display area wherein the first, second, and third display areas are simultaneously displayed (figs. 2-6; *data plot 70*).

As per claim 2, Kaufman teaches a method for displaying a medical image, the method wherein a size of the image frames displayed in the second display area is smaller than a size of the medical image displayed in the first display area (figs. 2-6).

As per claim 3, Kaufman teaches a method for displaying a medical image comprising (a) receiving a user selection in one of the first, second, and third display areas, and (b) altering a display of at least one of the first, second, and third display areas in response to the received user selection (figs. 2-6; section [0085]; *user can scroll through the image frames by selecting scrollbar 58 until marker 76 in field 70 is over the desire portion*).

As per claim 4, Kaufman teaches a method for displaying a medical image wherein (a) comprises receiving a selection of a point on the data plot in the third display area (figs. 2-6; section [0070]; *selection of a point on the data plot via highlighting*), and (b) comprises displaying an indicator at the point selected on the data plot in the third display area (figs. 2-6; section [0085]; *marker/indicator 76*), displaying an image frame in the first display area corresponding to the point selected on the data plot (section [0070]; *image frame 50 correspond to the point highlighted/selected on the ECG field/data plot*) and scrolling the plurality of image frames displayed in the second display area to the image frame corresponding to the point selected on the data plot (figs. 2-6; section [0085]; *scrolling through the image frames to the image frame that corresponds to the point selected on the data plot via selection of scrollbar 58 until marker 76 in field 70 is over the desire portion*).

As per claim 5, Kaufman teaches a method for displaying a medical image wherein (a) comprises receiving a selection of an image frame displayed in the second display area (section [0063]; *selection of an image frame such as image frame 56 via scrollbar 61*), and (b) comprise displaying an indicator at a point on the data plot in the third display area corresponding to the selected image frame (figs. 2-6; section [0085]; *a user selects an image frame such as image frame 56 by scrolling through the image frames using scrollbar 61 until highlight/indicator 76 is over the desire point on field/data plot 70 so that the point corresponds to the selected image*) and displaying the selected image frame in the first display area (figs. 2-6; section [0070]; *displaying highlighted/selected image frame in element 50*).

As per claim 9, Kaufman teaches a method for displaying a medical image comprising displaying a menu in a fourth display area (section [0061]).

As per claim 10, Kaufman teaches a method for displaying a medical image wherein the plurality of image frames comprises end-diastolic (ED) and end-systolic (ES) frames (section [0042]).

As per claim 11, Kaufman teaches a method for displaying a medical image wherein the medical image comprises a live image (section [0057]; *images are displayed to the user in real time*).

As per claim 12, Kaufman teaches a method for displaying a medical image wherein the medical image comprises a recalled image (section [0063]; *an image such as image frame 56 can be recalled via scrollbar 61*).

As per claim 13, Kaufman teaches a method for displaying a medical image wherein the medical image comprises an ultrasound image (section [0044]).

As per claim 14, Kaufman teaches a method for displaying a medical image wherein the data plot comprises a graph of at least one of the following: end-diastolic volume, end-systolic volume, ejection fraction, stroke volume, stroke index, cardiac output, and cardiac index (sections [0042] and [0069]; *ECG field 70 displays a patient's ECG signal that was taken during the imaging of the patient's heart wherein an ECG signal has a plurality of cardiac cycles including images obtained during systole and diastole*).

As per claim 15, Kaufman teaches a method for displaying a medical image wherein the first, second, and third display areas are displayed on a medical diagnostic image acquisition system (sections [0003], [0044] and [0087]; *e.g. ultrasound imaging system*).

As per claim 16, Kaufman teaches a method for displaying a medical image wherein the first, second, and third display areas are displayed on an image review system (section [0087]; *e.g. a computer other than the medical diagnostic image acquisition system that can recall images*).

Claims 17-20, in combination, are similar in scope to the combination of claims 2 and 5 and are therefore rejected under similar rationale.

Claims 21 and 31 individually are similar in scope to claim 10 and are therefore rejected under similar rationale.

Claims 22 and 32 individually are similar in scope to claim 11 and are therefore rejected under similar rationale.

Claims 23 and 33 individually are similar in scope to claim 12 and are therefore rejected under similar rationale.

Claims 24 and 34 individually are similar in scope to claim 13 and are therefore rejected under similar rationale.

Claims 25 and 35 individually are similar in scope to claim 15 and are therefore rejected under similar rationale.

Claims 26 and 36 individually are similar in scope to claim 16 and are therefore rejected under similar rationale.

Claims 27-30, in combination, are similar in scope to the combination of claims 2 and 5 and are therefore rejected under similar rationale.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaufman et al. ("Kaufman") in view of Gaddipati et al. ("Gaddipati").

As per claims 6-8, although Kaufman teaches a method for displaying a medical image wherein (a) comprises receiving a selection of the medical image in the first

display area (sections [0070] and [0073]), Kaufman does not explicitly disclose pausing the display of the medical image or suspending a medical image acquisition operation. Gaddipati teaches pausing the display of the medical image or suspending a medical image acquisition operation (col. 8, lines 52-63). It would have been obvious to an artisan at the time of the invention to incorporate the method of Gaddipati with the method of Kaufman in order to enable an operator control over the session or procedure performed by the application..

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ryals et al. (US 5803914) teach a method and apparatus for displaying data in a medical imaging system.

Subramanyan et al. (US 6782284 B1) teach a method and apparatus for semi-automatic aneurysm measurement and stent planning using volume image data

Hibbard et al. (US 6266453 B1) teach an automated image fusion/alignment system and method.

Brown (US 5459769) teaches a procedure for monitoring contrast agent application in a CT imaging system.

Inquires

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Lê Nguyen whose telephone number is **(571) 272-4068**. The examiner can normally be reached on Monday - Friday from 7:00 am to 3:30 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid, can be reached at (571) 272-4063.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LVN
Patent Examiner
January 7, 2007

Kristine Kincaid
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